

Product datasheet

Alexa Fluor® 647 Anti-GRP78 BiP antibody [EPR4040(2)] ab225082

Recombinant RabMAb

[2 Images](#)

Overview

Product name	Alexa Fluor® 647 Anti-GRP78 BiP antibody [EPR4040(2)]
Description	Alexa Fluor® 647 Rabbit monoclonal [EPR4040(2)] to GRP78 BiP
Host species	Rabbit
Conjugation	Alexa Fluor® 647. Ex: 652nm, Em: 668nm
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.

Tested Applications & Species

Application	Species
IHC-P	Human

[See all applications and species data](#) ↓

Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human medullary thyroid carcinoma tissue.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p>

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

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The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing the problem with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation.

One factor contributing to the crisis is the use of antibodies that are not suitable. This can lead to misleading results and the use of incorrect data informing project assumptions and direction. To help address this challenge, we have introduced an application and species grid on our primary antibody datasheets to make it easy to simplify identification of the right antibody for your needs.

Learn more [here](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4040(2)
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of **ab225082** in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Species
IHC-P	 Human
All applications	 Mouse  Rat

Guaranteed

Tested applications are guaranteed to work and covered by our Abpromise guarantee.

Predicted

Predicted to work for this combination of applications and species but not guaranteed.

Incompatible

Does not work for this combination of applications and species.

Application	Abreviews	Notes
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Probably plays a role in facilitating the assembly of multimeric protein complexes inside the endoplasmic reticulum. Involved in the correct folding of proteins and degradation of misfolded proteins via its interaction with DNAJC10, probably to facilitate the release of DNAJC10 from its substrate.

Involvement in disease

Autoantigen in rheumatoid arthritis.

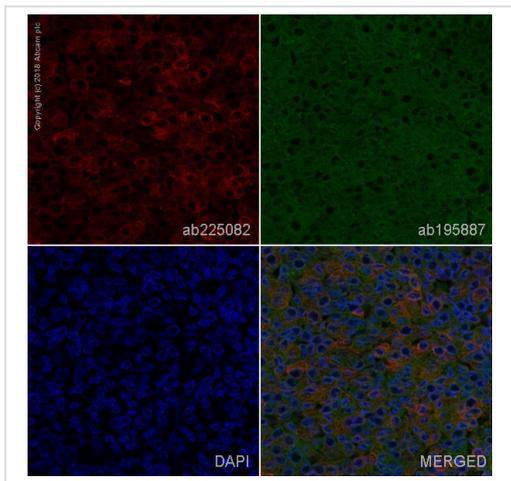
Sequence similarities

Belongs to the heat shock protein 70 family.

Cellular localization

Endoplasmic reticulum lumen. Melanosome. Cytoplasm. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-GRP78 BiP antibody [EPR4040(2)] (ab225082)

IHC image of GRP78 BiP staining in a section of formalin-fixed paraffin-embedded human Medullary thyroid carcinoma*.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6) in a Biocare Medical NxGen pressure cooker using retrieval settings of 110°C for 20 minutes. Non-specific protein-protein interactions were then blocked in TBS containing 0.025% (v/v) Triton X-100, 0.3M (w/v) glycine and 1% (w/v) BSA for 1h at room temperature. The section was then incubated overnight at +4°C in TBS containing 0.025% (v/v) Triton X-100 and 1% (w/v) BSA with ab225082 at 1/100 dilution (shown in red) and counterstained using ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

For other IHC staining systems (automated and non-automated), customers should optimize variable parameters such as antigen retrieval conditions, antibody concentrations and incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Alexa Fluor® 647 Anti-GRP78 BiP antibody
[EPR4040(2)] (ab225082)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
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- We investigate all quality concerns to ensure our products perform to the highest standards

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